

Deteksi Anomaly *Host Based Network* Menggunakan *Artificial Neural Network*

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Abstract

Intrusion Detection System (IDS) could be in the form of hardware or software in network for misuse detection or anomaly detection. The main characteristics possessed by IDS is the timeliness, high probability, low against false alarms, specificity in detecting certain attacks, and also being able to recognize the potential of new attacks. The use of ANN as the detection method in IDS conducted in five phases of research namely compose training/testing dataset, pre-process training/testing dataset, determine the neural network secure, train the neural network, and test neural network obtained the results of 99,8 % ANN accuracy (ACC) level, 100% sensitivity level or true positive rate with only 0,2 % generated false alarm rate.

Keywords : *Intrusion Detection System, Anomaly, Artificial Neural Network*

Abstrak

Intrusion Detection System (IDS) dapat berupa perangkat keras atau perangkat lunak pada jaringan yang mendeteksi adanya penyalagunaan (missuse detection) atau mendeteksi anomali (anomaly detection). Karakteristik utama IDS adalah ketepatan waktu, probabilitas tinggi, rendah false alarm, mendeteksi serangan tertentu, mampu mengenali serangan baru. Penggunaan ANN sebagai metode deteksi pada IDS yang dilakukan dalam lima tahapan penelitian yaitu compose training/testing dataset, pre-process training/testing dataset, determine the neural network secure, train neural network, dan test neural network diperoleh hasil tingkat accuracy (ACC) ANN adalah 99.8% akurat, tingkat sensitivity atau true positive rate adalah 100% dengan false alarm rate yang dihasilkan hanya 0.2%.

Kata Kunci : *Intrusion Detection System, Anomali, Jaringa Saraf Tiruan*

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